

(TITLE OF THE DOCUMENT)

Drawing

(Fig. 1)

10 control section  
20 memory  
30 interface circuit  
40 print controlling section  
41 print head  
42 carriage motor  
43 paper feeding motor  
44 cleaning mechanism  
50 operation panel  
60 display panel  
100 printing means  
210 first ink cartridge  
220 second ink cartridge  
230 memory 1  
240 memory 2

(Fig. 3)

black ink cartridge and color ink cartridge

250, 260 contact

(Fig. 2)

S1 Mounting of first ink cartridge  
S2 Mounting of second ink cartridge  
S3 Reading of information 1 from memory 1  
S4 Reading of information 2 from memory 2  
S5 First ink cartridge is fitted to apparatus?  
S6 Second ink cartridge is fitted to apparatus?  
S7 Stopping of apparatus, display of unfitted tank 1  
S8 Stopping of apparatus, display of unfitted tank 2

S9 Fitness between first and second ink cartridges is OK?  
S10 Stopping of apparatus, warning display of unfitness between  
first and second ink cartridges  
To printing operation

(Fig. 4)

10a control section  
20a memory  
30a interface circuit  
40a print controlling section  
41a print head  
42a carriage motor  
43a paper feeding motor  
44a cleaning mechanism  
50a operation panel  
60a display panel  
100a printing means  
210a first ink cartridge  
220a second ink cartridge  
230a memory 1  
240a memory 2

(Fig. 9)

black ink cartridge and color ink cartridges  
250(260) contact

(Fig. 5)

T1 Mounting of first and second ink cartridges  
T2 Reading of residual ink amounts from memories 1 and 2  
T3 Residual ink amount is larger than preset minimum ink amount?  
T4 Stopping of apparatus, Ink end display of ink cartridge

T5      Print starting

T6      Addition of amounts of ink used in printing and in dummy ink  
ejection

T7      Rewriting of residual ink amount in memory 1 every time printing  
of one page is completed

T8      Cleaning is required?

T9      Cleaning instruction

T10     Reading of residual ink amount of first ink cartridge

T11     Reading of residual ink amount of second ink cartridge

T12     Residual ink amount is larger than sum of preset minimum ink  
amount and ink amount necessary for cleaning operation

T13     Residual ink amount is larger than sum of preset minimum ink  
amount and ink amount necessary for cleaning operation

T14     Cleaning

T15     Stopping of apparatus, Ink end display of first ink cartridge

T16     Stopping of apparatus, Ink end display of second ink cartridge

T17     Cartridge exchange

T18     Cartridge exchange

(Fig. 6)

U9      Cleaning is required?

U10     Reading of residual ink amount of first ink cartridge

U11     Reading of residual ink amount of second ink cartridge

U12     Residual ink amount of first ink cartridge is larger than that  
of second cartridge?

U13     Residual ink amount of first ink cartridge is larger than sum  
of preset minimum ink amount and ink amount necessary for cleaning  
operation?

U14     Execution of cleaning operation which requires small amount  
of ink up to the preset minimum ink amount of first ink cartridge

U15     Execution of normal cleaning

U16 Ink end display of first ink cartridge  
U17 Ink cartridge exchange  
U18 Residual ink amount of second ink cartridge is larger than sum  
of preset minimum ink amount and ink amount necessary for cleaning  
operation?  
U19 Execution of cleaning operation which requires small amount  
of ink up to the preset minimum ink amount of second ink cartridge  
U20 Ink end display of second ink cartridge  
U21 Ink cartridge exchange  
To next step

(Fig. 7)

10b control section  
20b memory  
30b interface circuit  
40b print controlling section  
42b carriage motor  
43b paper feeding motor  
44b cleaning mechanism  
50b operation panel  
60b display panel  
100b printing means  
210b first ink cartridge  
220b second ink cartridge  
230b memory 1  
240b memory 2  
41b print head

(Fig. 8)

For text printing, for general business  
ink cartridge X and ink cartridge Y

For photo printing

ink cartridge X' and ink cartridge Y'

To printing means

【書類名】 図 面

Fig. 1  
【図1】

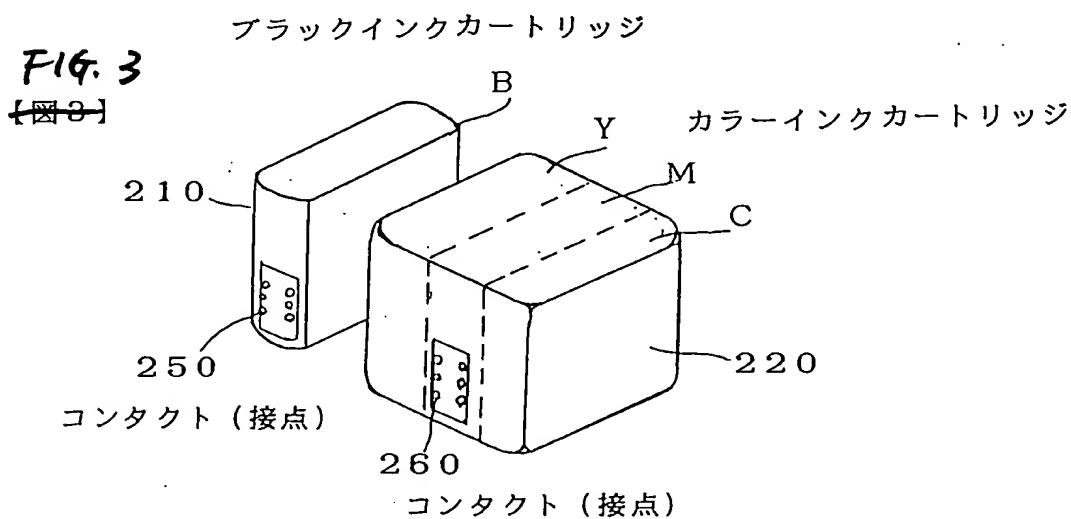
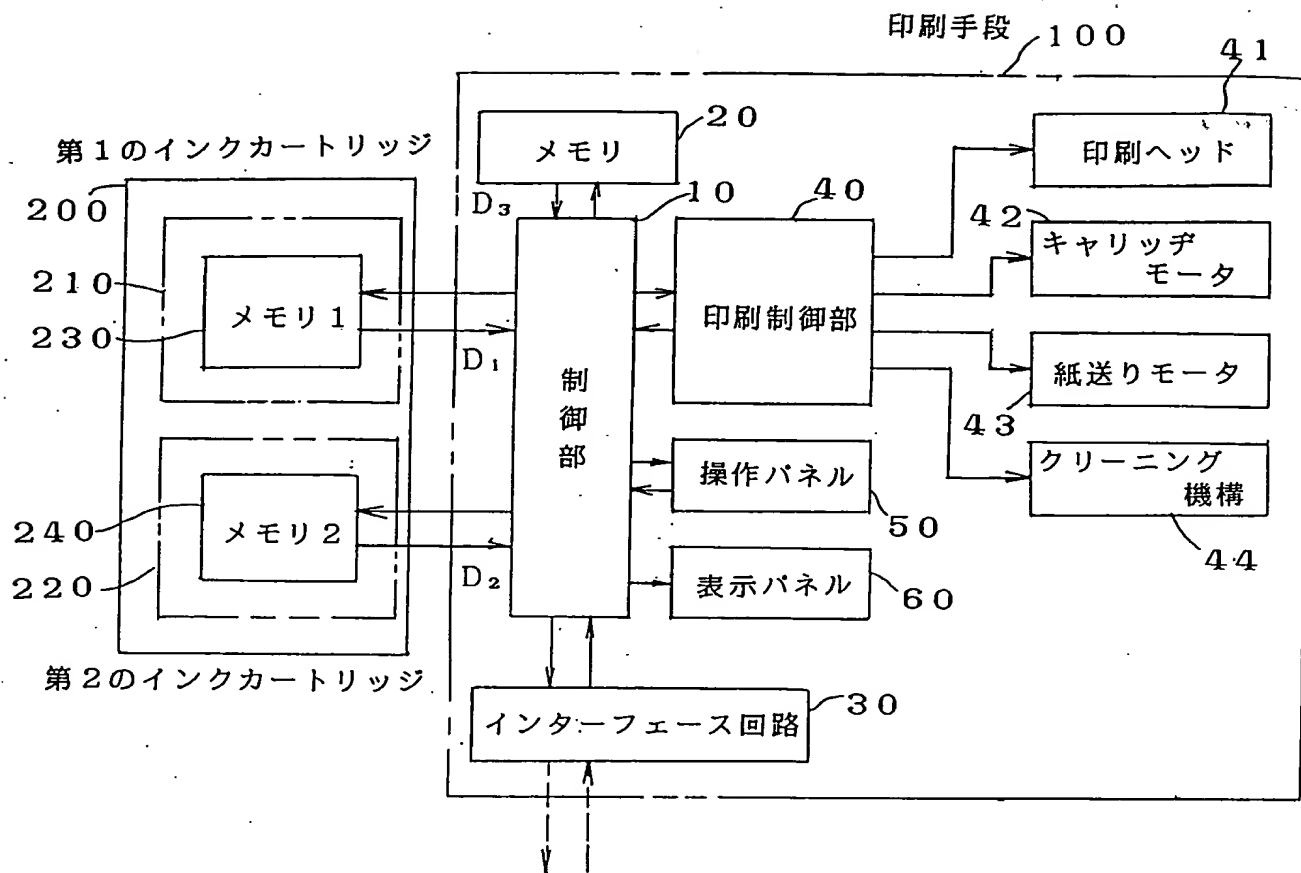


Fig. 3  
【図3】

FIG. 2  
[図2]

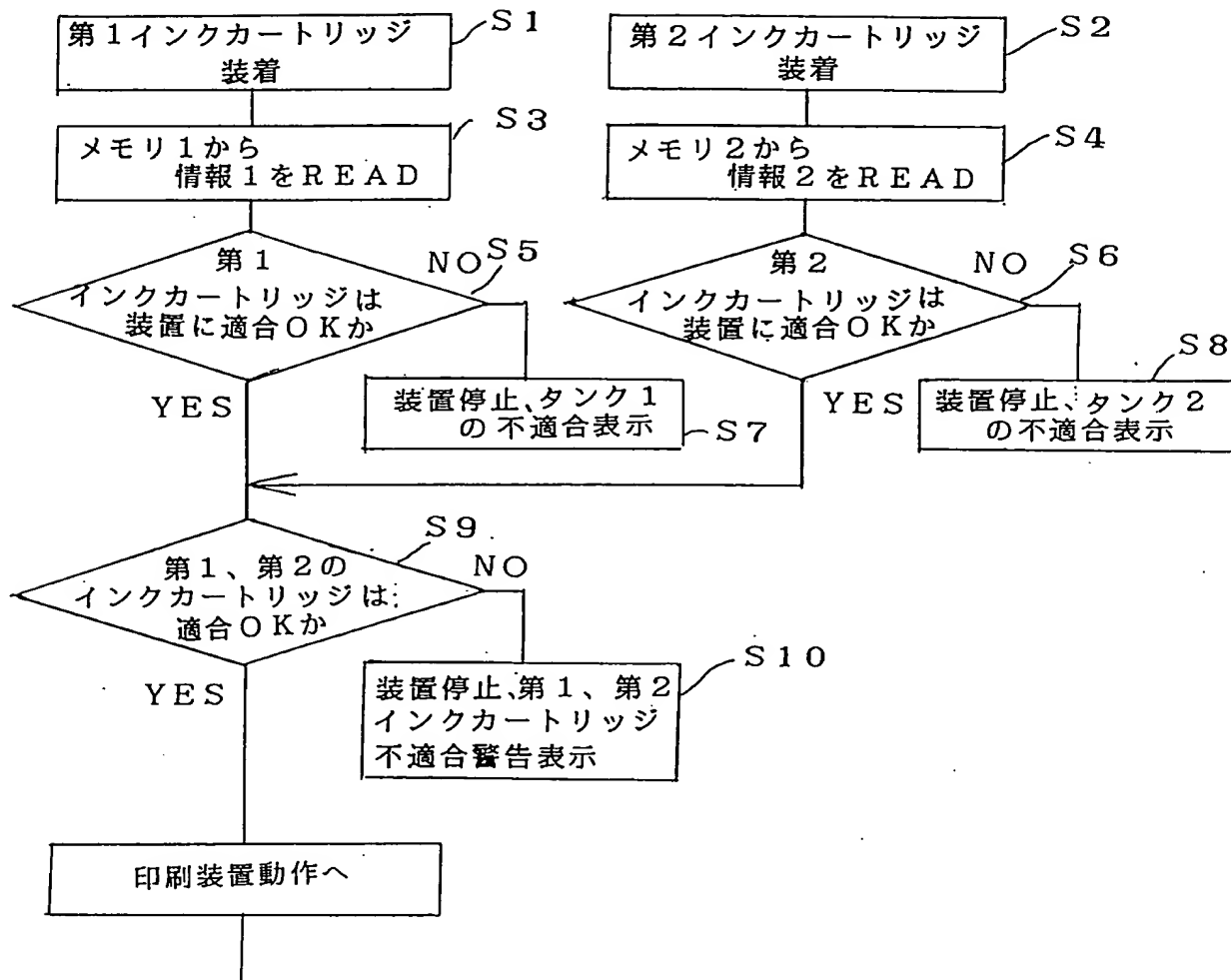
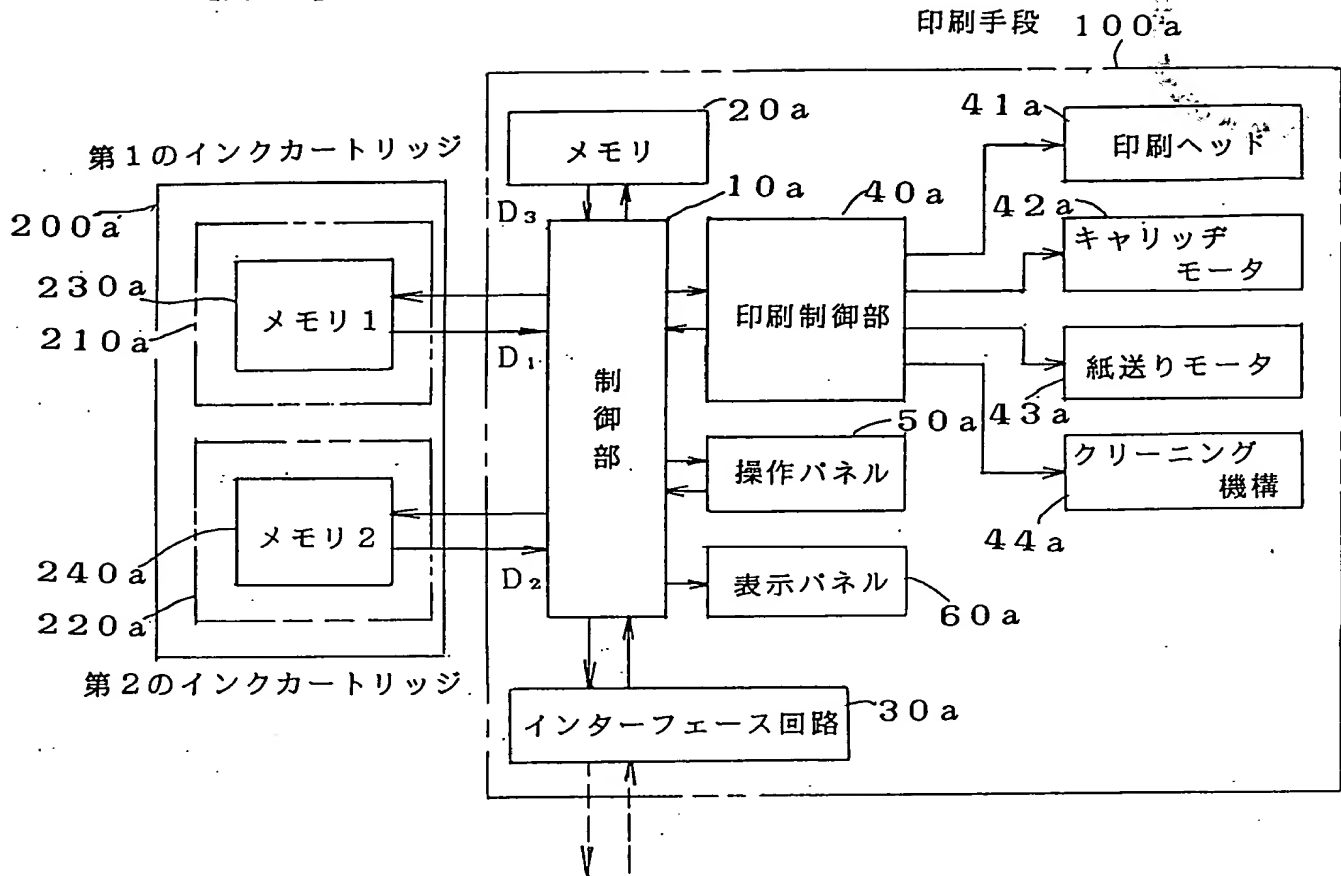


Fig. 4  
[図 4]



ブラックインクカートリッジ

Fig. 9  
[図 9]

カラーインクカートリッジ

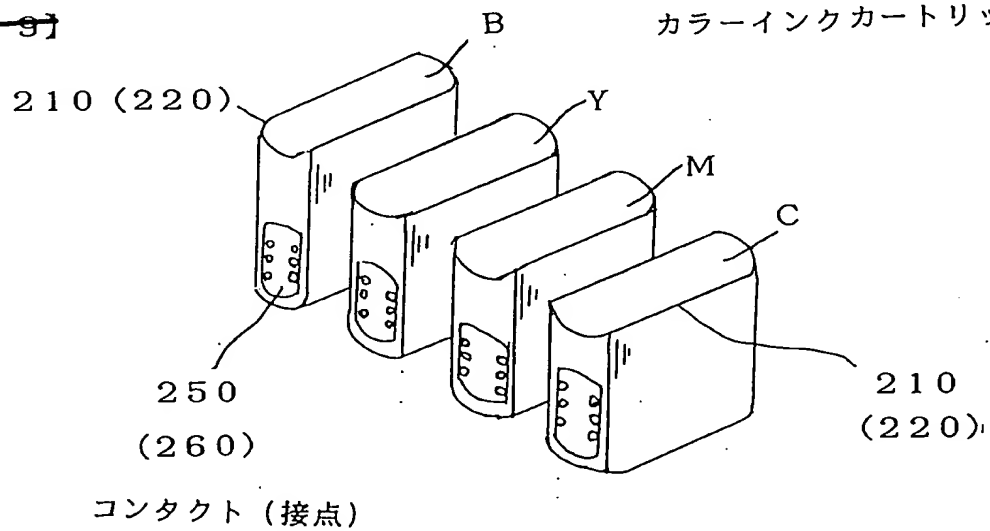




FIG. 5  
[図 5]

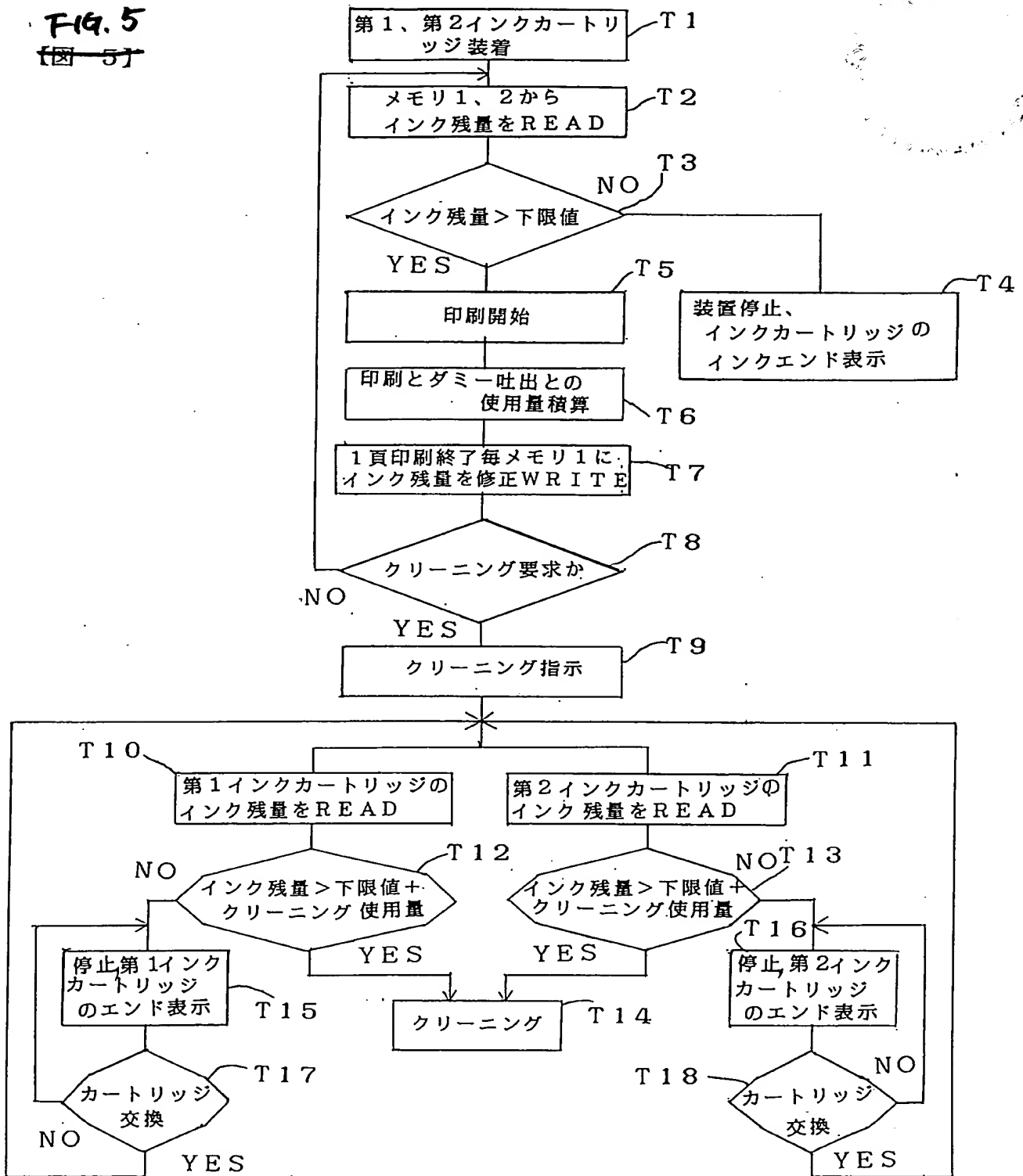
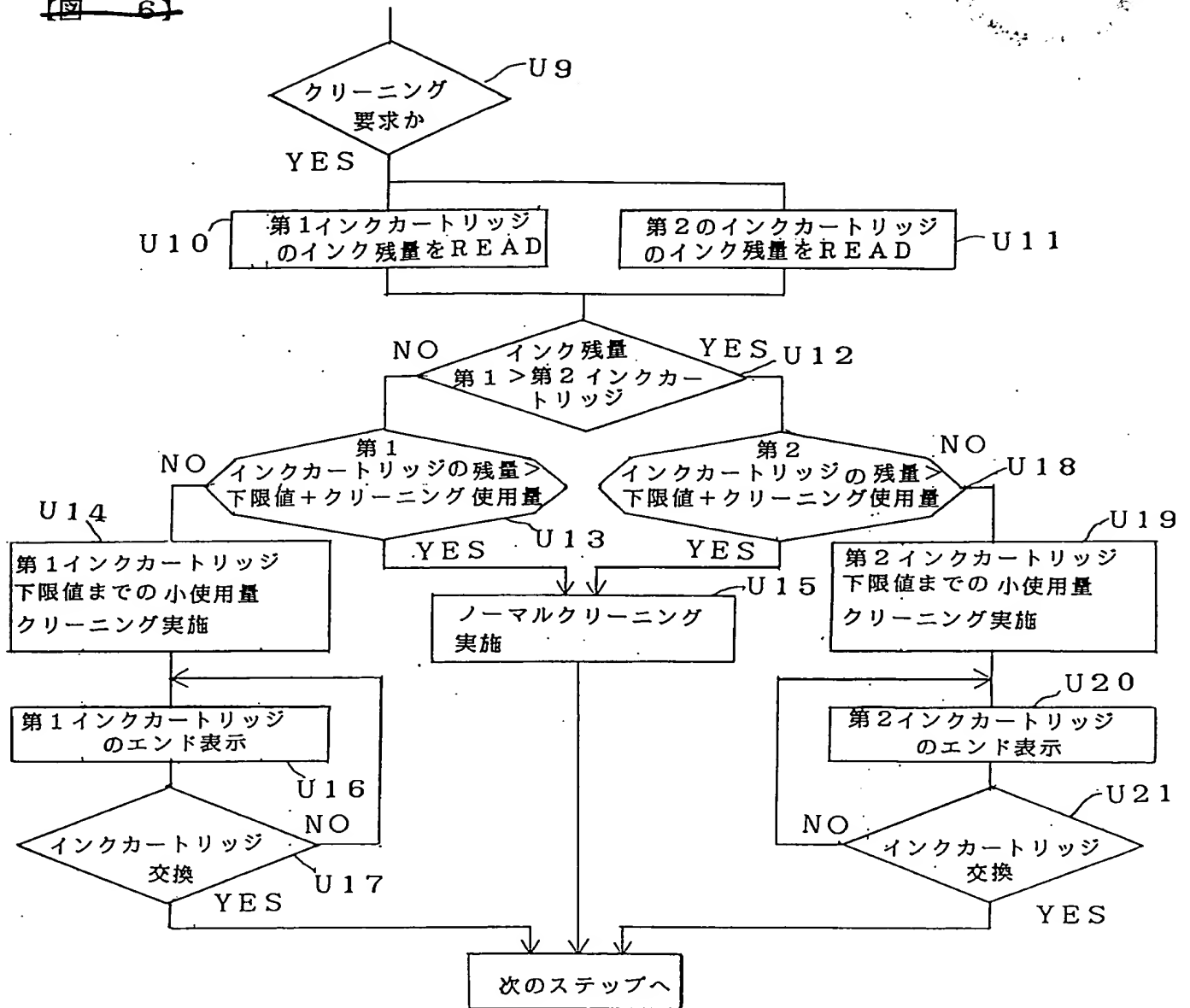


FIG. 6  
【図 6】



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Fig. 7

【図 7】

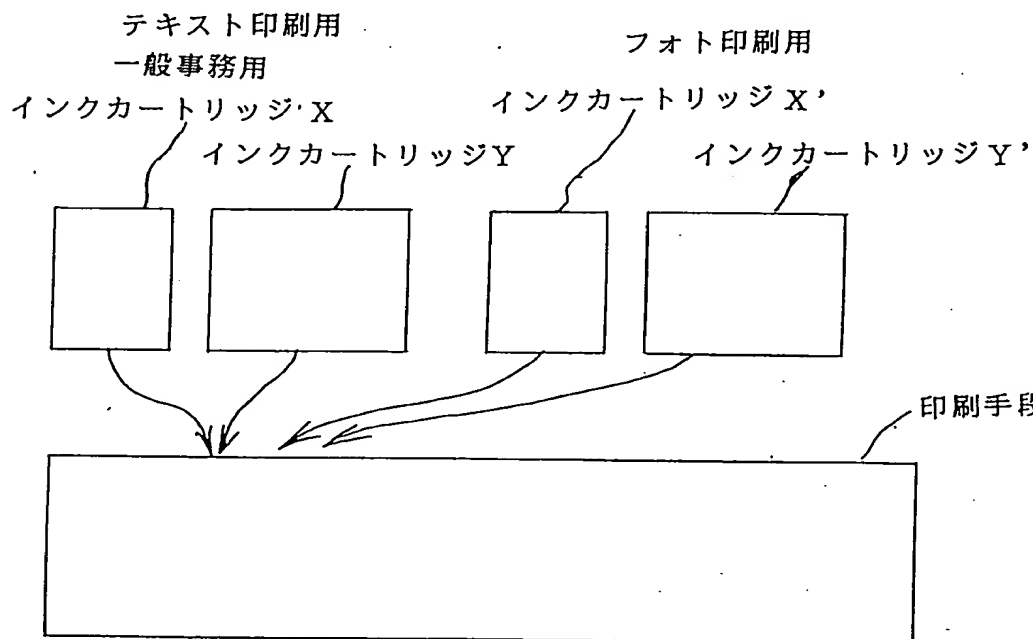
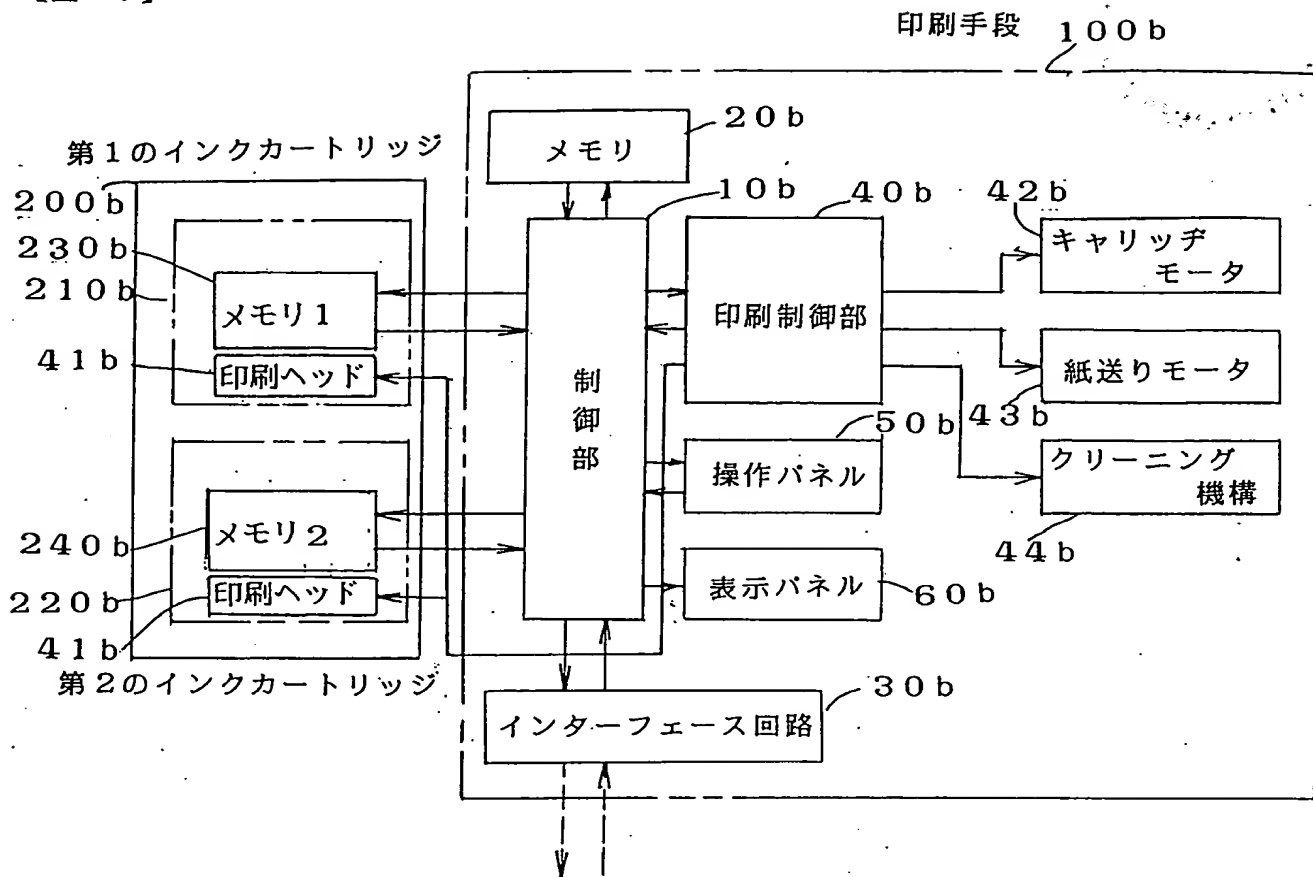


Fig. 8

【図 8】

FIG. 10  
【図10】

